

*53 Cited*

- d) adding said primary cell population to a microwell comprising a hydrophobic membrane having a first cytokine binding ligand, under conditions such that said T cell secretes a cytokine that binds to said first cytokine binding ligand;
- e) adding a second cytokine binding ligand to said microwell under conditions such that said cytokine binding ligand binds to said cytokine; and
- f) detecting said secreted cytokine, thereby monitoring said immunizing.

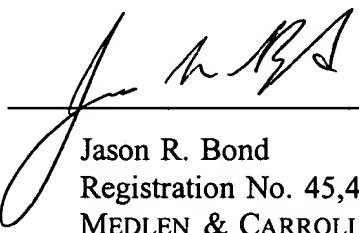
#### **R E M A R K S**

Claims 1, 25 and 26-45 are pending in the present case. In the communication mailed November 14, 2002, the Examiner alleged a shift in the claimed subject matter (allegedly shifting to non-elected subject matter). During an interview, the Examiner agreed that no such shift has occurred. However, the Examiner did suggest that the preamble of the independent claims be amended to include "immunizing" as wells as "monitoring immunization." The present communication amends the claims as suggested by the Examiner. These amendments are not in acquiescence to any of the Examiner's rejections and are made to further the Examination of this application. Applicants explicitly reserve the right to prosecute the original (or similar) claims in the future.

#### **CONCLUSION**

Should the Examiner believe that a telephone interview would aid in the prosecution of this application, Applicants encourage the Examiner to call the undersigned collect at (618) 218-6900.

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**Appendix 1 - Version With Markings to Show Changes Made**

**IN THE SPECIFICATION:**

Title beginning at line 1, page 1, has been amended as follows:

[METHODS OF MONITORING IMMUNIZATION] METHODS OF IMMUNIZING AND MONITORING IMMUNIZATION

**IN THE CLAIMS:**

1. (amended) A method of immunizing and monitoring immunization, comprising:
  - a) providing: i) a human, and ii) an immunizing preparation comprising myelin basic protein and Incomplete Freund's Adjuvant;
  - b) immunizing said human with said immunizing preparation;
  - c) obtaining a primary cell population from said human comprising T cells capable of secreting cytokines; and
  - d) determining if said T cells are primarily Th2 cells secreting an anti-inflammatory cytokine or primarily Th1 cells secreting an inflammatory cytokine, wherein said Th2 cells secreting an anti-inflammatory cytokine indicates that said immunizing is protective against multiple sclerosis.
  
25. (amended) A method of immunizing and monitoring immunization, comprising:
  - a) providing: i) a human with symptoms of multiple sclerosis, and ii) an immunizing preparation comprising myelin basic protein and Incomplete Freund's Adjuvant;
  - b) immunizing said human with said immunizing preparation;
  - c) obtaining a primary cell population from said human comprising T cells capable of secreting cytokines; and
  - d) determining if said T cells are primarily Th2 cells secreting an anti-inflammatory cytokine or primarily Th1 cells secreting an inflammatory

cytokine, wherein said Th2 cells secreting an anti-inflammatory cytokine indicates that said immunizing is effective for treating symptoms of multiple sclerosis.

26. (amended) A method of immunizing and monitoring immunization, comprising:

- a) providing: i) a human, and ii) an immunizing preparation comprising myelin basic protein and Incomplete Freund's Adjuvant;
- b) immunizing said human with said immunizing preparation;
- c) obtaining a primary cell population from said human comprising T cells capable of secreting cytokines;
- d) adding said primary cell population to a microwell comprising a hydrophobic membrane having a first cytokine binding ligand, under conditions such that said T cell secretes a cytokine that binds to said first cytokine binding ligand;
- e) adding a second cytokine binding ligand to said microwell under conditions such that said cytokine binding ligand binds to said cytokine; and
- f) detecting said secreted cytokine, thereby monitoring said immunizing.

**Appendix 2 - Pending Claims**

1. A method of immunizing and monitoring immunization, comprising:
  - a) providing: i) a human, and ii) an immunizing preparation comprising myelin basic protein and Incomplete Freund's Adjuvant;
  - b) immunizing said human with said immunizing preparation;
  - c) obtaining a primary cell population from said human comprising T cells capable of secreting cytokines; and
  - d) determining if said T cells are primarily Th2 cells secreting an anti-inflammatory cytokine or primarily Th1 cells secreting an inflammatory cytokine, wherein said Th2 cells secreting an anti-inflammatory cytokine indicates that said immunizing is protective against multiple sclerosis.
  
25. A method of immunizing and monitoring immunization, comprising:
  - a) providing: i) a human with symptoms of multiple sclerosis, and ii) an immunizing preparation comprising myelin basic protein and Incomplete Freund's Adjuvant;
  - b) immunizing said human with said immunizing preparation;
  - c) obtaining a primary cell population from said human comprising T cells capable of secreting cytokines; and
  - d) determining if said T cells are primarily Th2 cells secreting an anti-inflammatory cytokine or primarily Th1 cells secreting an inflammatory cytokine, wherein said Th2 cells secreting an anti-inflammatory cytokine indicates that said immunizing is effective for treating symptoms of multiple sclerosis.
  
26. A method of immunizing and monitoring immunization, comprising:
  - a) providing: i) a human, and ii) an immunizing preparation comprising myelin basic protein and Incomplete Freund's Adjuvant;
  - b) immunizing said human with said immunizing preparation;
  - c) obtaining a primary cell population from said human comprising T cells capable of secreting cytokines;

- d) adding said primary cell population to a microwell comprising a hydrophobic membrane having a first cytokine binding ligand, under conditions such that said T cell secretes a cytokine that binds to said first cytokine binding ligand;
- e) adding a second cytokine binding ligand to said microwell under conditions such that said cytokine binding ligand binds to said cytokine; and
- f) detecting said secreted cytokine, thereby monitoring said immunizing.

27. The method of Claim 26, wherein said detected cytokine is IL-5.

28. The method of Claim 26, wherein said detected cytokine is IL-4.

29. The method of Claim 26, wherein said detected cytokine is IL-10.

30. The method of Claim 26, wherein said detected cytokine is IFN $\gamma$ .

31. The method of Claim 26, wherein said detected cytokine is IL-2.

32. The method of Claim 26, wherein said hydrophobic membrane comprises polyvinylidene difluoride.

33. The method of Claim 26, wherein said microwell comprises an enclosed bottom.

34. The method of Claim 1, wherein said determining comprises detecting said secreted cytokine.

35. The method of Claim 1, wherein said secreted cytokine is IL-5.

36. The method of Claim 1, wherein said secreted cytokine is IL-4.

37. The method of Claim 1, wherein said secreted cytokine is IL-10.

38. The method of Claim 1, wherein said secreted cytokine is IFN $\gamma$ .
39. The method of Claim 1, wherein said secreted cytokine is IL-2.
40. The method of Claim 25, wherein said determining comprises detecting said secreted cytokine.
41. The method of Claim 25, wherein said secreted cytokine is IL-5.
42. The method of Claim 25, wherein said secreted cytokine is IL-4.
43. The method of Claim 25, wherein said secreted cytokine is IL-10.
44. The method of Claim 25, wherein said secreted cytokine is IFN $\gamma$ .
45. The method of Claim 25, wherein said secreted cytokine is IL-2.